

**Amendments to the claims:**

1. (currently amended) A method ~~or for~~ diagnosis of a sensor in a motor vehicle having an internal combustion engine, comprising the following steps:

~~wherein~~ during operation of the motor vehicle, monitoring an output signal of the sensor ~~is monitored~~ for whether a maximum value of the output signal undershoots a first threshold value and/or a minimum value of the output signal overshoots a second threshold value~~[, ]~~; and

~~in that case forwarding~~ a signal ~~is forwarded~~ to a controller that signals to the controller that the sensor, upon restarting of the motor vehicle, might be furnishing incorrect data if the maximum value of the output signal undershoots the first threshold value and/or the minimum value of the output signal overshoots the second threshold value.

2. (currently amended) The method as recited in claim 1, ~~characterized in that wherein~~ the first threshold value is equal to the second threshold value.

3. (currently amended) The method as recited in claim 1, ~~characterized in that wherein~~ in the event of undershooting or overshooting of the threshold values, the output signals of the sensor upon restarting of the motor vehicle are initially not used for the control and/or regulation of the motor vehicle.

4. (currently amended) The method as recited in claim 3, characterized in that wherein the sensor is not used again for the control and/or regulation of the motor vehicle until calibration of the sensor has been done.

5. (currently amended) The method as recited in claim 4, characterized in that wherein the calibration is done by learning minimum and maximum output values of the sensor.

6. (currently amended) The method as recited in claim 1, characterized in that wherein the signal in the controller is stored in a nonvolatile memory so that the signal will be directly available upon restarting of the engine.

7. (currently amended) The method as recited in claim 1, characterized in that wherein the sensor is a phase sensor on a camshaft of the engine.

8. (currently amended) The method as recited in claim 3, characterized in that wherein starting of the engine in emergency operation is done without using the phase sensor.

9. (currently amended) The method as recited in claim 1, characterized in that wherein the threshold values are stored in a permanent memory of the sensor.

10. (original) The method as recited in claim 9, that by means of a calibration of the sensor, the threshold values are adapted.

11. (currently amended) The method as recited in claim 1, characterized in that wherein the forwarding of the signal is done in encoded form.

12. (original) A sensor having means for performing the method of claim 1.